

What is claimed is:

1. A crystalline Form-I of Sumatriptan succinate.
2. A crystalline Form-I of Sumatriptan Succinate according to claim 1 having X-ray powder diffraction pattern with peaks around 12.628, 13.256, 15.412, 15.704, 16.198, 16.397, 18.107, 19.894, 20.061, 20.243, 20.582, 21.353, 22.734, 26.018 and 26.938 two-theta degrees.
3. A crystalline Form-I of Sumatriptan succinate of claim 1 which has X-ray powder diffraction pattern substantially as depicted Figure (1).
4. A crystalline Form-I of Sumatriptan succinate of claim 1 which has a Differential Scanning Colorimetry thermogram, which exhibits a significant endo peak around 169°C.
5. A crystalline Form-I of Sumatriptan succinate of claim 1 which has a Differential Scanning Colorimetry thermogram substantially as depicted in Figure (2).
6. A crystalline Form-I of Sumatriptan succinate of claim 1 having identified characteristic bands around 3373, 3101, 2932, 1708, 1566, 1338, 1299, 1270, 1170, 1081, 884 and 638 cm⁻¹ in Infra red spectrum.
7. A crystalline Form-I of Sumatriptan succinate of claim 1 having an Infra red spectrum substantially as depicted in Figure (3).
8. A process for the preparation of novel crystalline Form-I of Sumatriptan succinate, which comprises;

- a) treating highly pure Sumatriptan base in a ketone solvents selected from the group consisting of acetone, methyl isobutyl ketone and methyl ethyl ketone; or an ether solvent selected from the group consisting of tetrahydrofuran, diethyl ether, diisopropyl ether and diisobutyl ether, or an ester solvent selected from the group consisting of methyl acetate, ethyl acetate, propyl acetate and butyl acetate, or alcoholic solvent selected from the group consisting of methanol, propanol, isopropanol, butanol, isobutanol and mixtures thereof;
 - b) adding Succinic acid to the reaction mixture;
 - c) optionally concentrating the reaction mixture;
 - d) cooling the reaction mixture to a temperature of 0-35°C; and
 - e) filtering the isolated solid accompanied by drying the solid at a temperature of 50-100°C to afford the crystalline Form-I of Sumatriptan succinate.
9. The process as claimed in claim 8 wherein the ketone solvent of step (a) is acetone.
 10. The process as claimed in claim 8 wherein the ether solvent is of step (a) is tetrahydrofuran.
 11. The process as claimed in claim 8 wherein the ester solvent of step (a) is ethyl acetate.
 12. The process according to anyone of claims 8 to 11 wherein the highly pure Sumatriptan is at least about 99% pure by HPLC.
 13. A crystalline Form-II of Sumatriptan succinate.

14. A crystalline Form-II of Sumatriptan Succinate according to claim 13 having X-ray powder diffraction pattern with peaks around 7.320, 14.707, 15.424, 15.710, 16.202, 16.406, 17.111, 17.495, 18.751, 19.047, 19.966, 20.615, 21.176, 21.360, 22.082, 22.904, 26.089, 29.675 and 31.474 two-theta degrees.
15. A crystalline Form-II of Sumatriptan succinate of claim 13 which has an X-ray powder diffraction pattern substantially as depicted in Figure (4).
16. A crystalline Form-II of Sumatriptan succinate of claim 13 which has a Differential Scanning Colorimetry thermogram, which exhibits a significant major endo peak around 168°C, minor endo peaks around 122°C and 160°C.
17. A crystalline Form-II of Sumatriptan succinate of claim 13 which has a Differential Scanning Colorimetry thermogram substantially as depicted in Figure (5).
18. A crystalline Form-II of Sumatriptan succinate of claim 13 having infrared characteristic bands at around 3358, 3268, 2931, 1707, 1569, 1336, 1301, 1264, 1143, 1092, 884 and 639 cm⁻¹ in Infra red spectrum.
19. A crystalline Form-II of Sumatriptan succinate of claim 13 having an Infrared spectrum substantially as depicted in Figure (6).
20. A crystalline Form-II of Sumatriptan Succinate according to claim 13 having X-ray powder diffraction pattern with a peak around 7.320 two-theta degrees which has a Differential Scanning Colorimetry thermogram, which exhibits a significant major endo peak around 168°C, minor endo peaks around 122°C and 160°C.

21. A process for the preparation of a novel crystalline Form-II of Sumatriptan succinate, which comprises;
 - a) refluxing highly pure Sumatriptan in an aliphatic/alicyclic hydrocarbon solvent selected from the group consisting of petroleum ether, n-hexane, n-heptane, cyclohexane and cycloheptane, or a halogenated solvent selected from the group consisting of chloroform, dichloromethane, dichloroethane and carbon tetrachloride;
 - b) adding Succinic acid to the reaction mixture;
 - c) stirring the reaction mixture at reflux for about 30 minutes to about 4 hours;
 - d) cooling the reaction mixture to a temperature of about 0 to about 35°C;
 - e) filtering the isolated solid and drying the obtained solid at a temperature of about 30 to about 100°C, to afford crystalline Form-II of Sumatriptan succinate.
22. A process as claimed in claim 21 of step (a), wherein the alicyclic hydrocarbon solvent is cyclohexane.
23. A process as claimed in claim 21 wherein the halogenated solvent of step (a) is dichloromethane.
24. A process according to any one of claims 21 to 23 wherein the highly pure Sumatriptan is at least about 99% pure by HPLC.
25. Sumatriptan base having an x-ray powder diffraction pattern substantially as depicted in Figure 7.

26. Sumatriptan base having an infrared absorption spectrum substantially as depicted in Figure 8.
27. A process for the preparation of highly pure N-Methyl-3-[2-(dimethylamino)ethyl]-1H-Indole-5-methane sulfonamide (Sumatriptan), which comprises;
 - f. dissolving crude Sumatriptan in acetone at reflux temperature to a clear solution;
 - g. treating the obtained clear solution with charcoal;
 - h. concentrating the clear filtered solution to about filterable volume level;
 - i. cooling the reaction mixture to a temperature of 0-30°C; and
 - j. filtering the obtained solid by conventional methods.
28. The process according to claim 27 wherein the highly pure Sumatriptan is at least about 99% pure by HPLC.
29. A composition comprising a crystalline Form I of Sumatriptan succinate as defined as in any one of claims 1 to 7 and a physiologically or a pharmaceutically acceptable carrier, diluent, excipient, additive, filler, lubricant, binder, stabilizer, solvent or solvate.
30. A composition comprising a crystalline Form II of Sumatriptan succinate as defined as in any one of claims 13 to 20 and a physiologically or a pharmaceutically acceptable carrier, diluent, excipient, additive, filler, lubricant, binder, stabilizer, solvent or solvate.
31. A composition comprising a crystalline Form I of Sumatriptan succinate as defined as in any one of claims 25 to 26 and a physiologically or a pharmaceutically

acceptable carrier, diluent, excipient, additive, filler, lubricant, binder, stabilizer, solvent or solvate.

32. A composition according to any one of claims 29 to 31 used as an anti-migraine agent or for the treatment of a cluster headaches.
33. A method for treating a migraine comprising administering an effective amount of a compound according to any one of claims 1 to 7, 13 to 20, 25 to 26 or a composition according to any one of claims 29 to 31 to a patient in need thereof.
34. A method for preventing a migraine comprising administering an effective amount of a compound according to any one of claims 1 to 7, 13 to 20, 25 to 26 or a composition according to any one of claims 29 to 31 to a patient in need thereof.
35. A method for treating a cluster headache comprising administering an effective amount of a compound according to any one of claims 1 to 7, 13 to 20, 25 to 26 or a composition according to any one of claims 29 to 31 to a patient in need thereof.